

FIG. 1

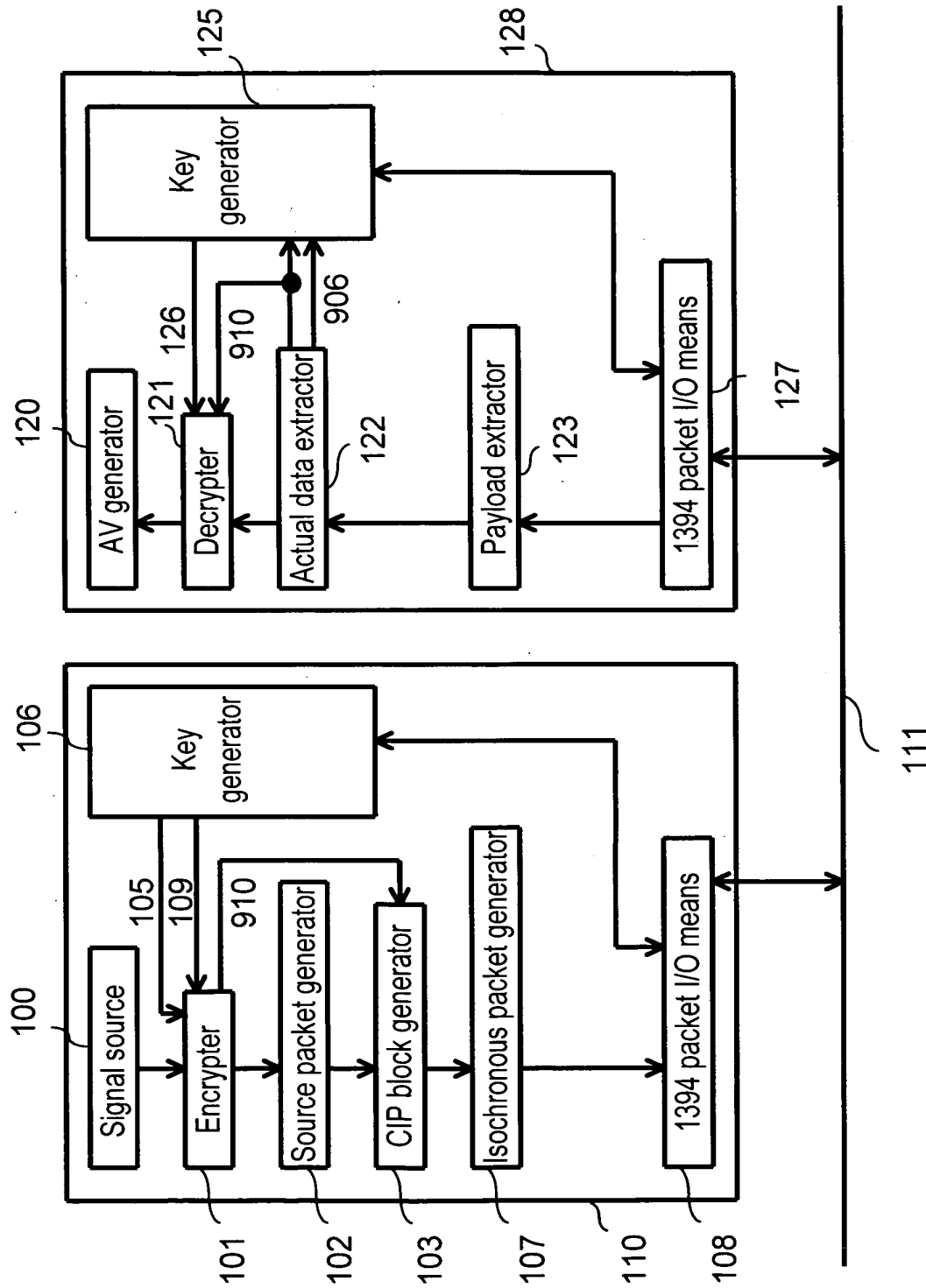


FIG. 2

FIG. 3A      208 operation code

|            |                                 |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |
|------------|---------------------------------|--|--|--|--|--|--|--|--------------|--|--|--|--|--|--|--|
| opcode     | Authentication and Key exchange |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |
| operand[0] | F <sub>15</sub>                 |  |  |  |  |  |  |  | algorithm ID |  |  |  |  |  |  |  |
| operand[1] | FF <sub>16</sub>                |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |
| operand[2] | FF <sub>16</sub>                |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |
| operand[3] | FF <sub>16</sub>                |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |
| operand[4] | FF <sub>16</sub>                |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |
| operand[5] | FF <sub>16</sub>                |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |
| operand[6] | FF <sub>16</sub>                |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |
| operand[7] | FF <sub>16</sub>                |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |
| operand[8] | FF <sub>16</sub>                |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |

**FIG. 3B**      208 operation code

|            | msb                             |                     |  |              |  |  | lsb   |
|------------|---------------------------------|---------------------|--|--------------|--|--|-------|
| opcode     | Authentication and Key exchange |                     |  |              |  |  |       |
| operand[0] | 0                               |                     |  | algorithm ID |  |  |       |
| operand[1] | (msb)                           | algorithm field     |  |              |  |  | (lsb) |
| operand[2] |                                 |                     |  |              |  |  |       |
| operand[3] | FF <sub>16</sub>                |                     |  |              |  |  |       |
| operand[4] | FF <sub>16</sub>                |                     |  |              |  |  |       |
| operand[5] | FF <sub>16</sub>                |                     |  |              |  |  |       |
| operand[6] | FF <sub>16</sub>                |                     |  |              |  |  |       |
| operand[7] | (msb)                           | maximum data length |  |              |  |  | (lsb) |
| operand[8] |                                 |                     |  |              |  |  |       |

**FIG. 3C**      208 Operation code

|                         | msb                             | 256 operation code |  |  |                 | lsb |     |
|-------------------------|---------------------------------|--------------------|--|--|-----------------|-----|-----|
| opcode                  | Authentication and Key exchange |                    |  |  |                 |     | 200 |
| operand[0]              | reserved                        |                    |  |  | algorithm ID    |     | 201 |
| operand[1]              | (msb) algorithm field (lsb)     |                    |  |  |                 |     | 203 |
| operand[2]              |                                 |                    |  |  |                 |     | 299 |
| operand[3]              | label 202                       |                    |  |  | step No.        |     | 204 |
| operand[4]              | subfunction                     |                    |  |  |                 |     | 206 |
| operand[5]              | channel No.                     |                    |  |  |                 |     | 209 |
| operand[6]              | block No. 205                   |                    |  |  | total block No. |     | 207 |
| operand[7]              | (msb) data_length (lsb)         |                    |  |  |                 |     |     |
| operand[8]              |                                 |                    |  |  |                 |     |     |
| operand[9]              |                                 |                    |  |  |                 |     |     |
| operand[8+ data_length] | data                            |                    |  |  |                 |     |     |

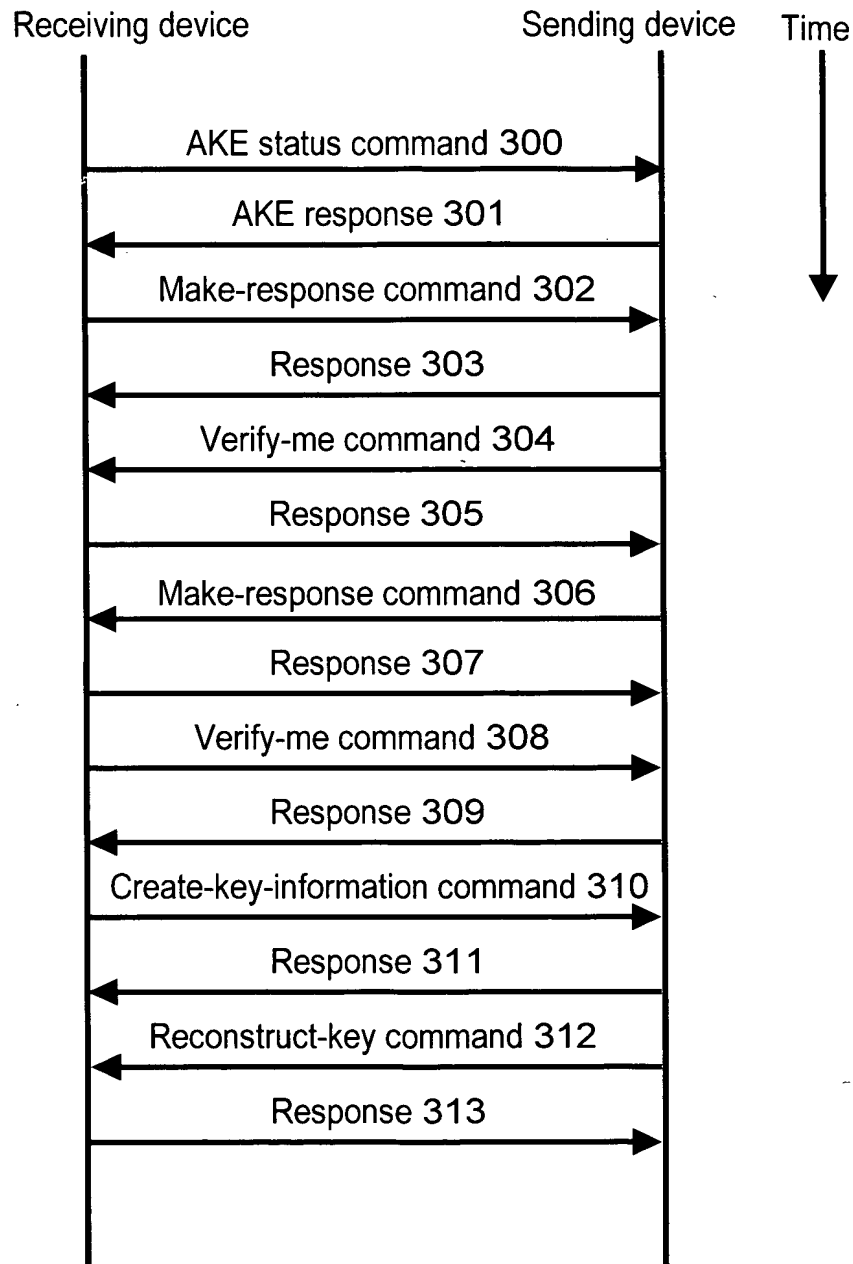


FIG. 4

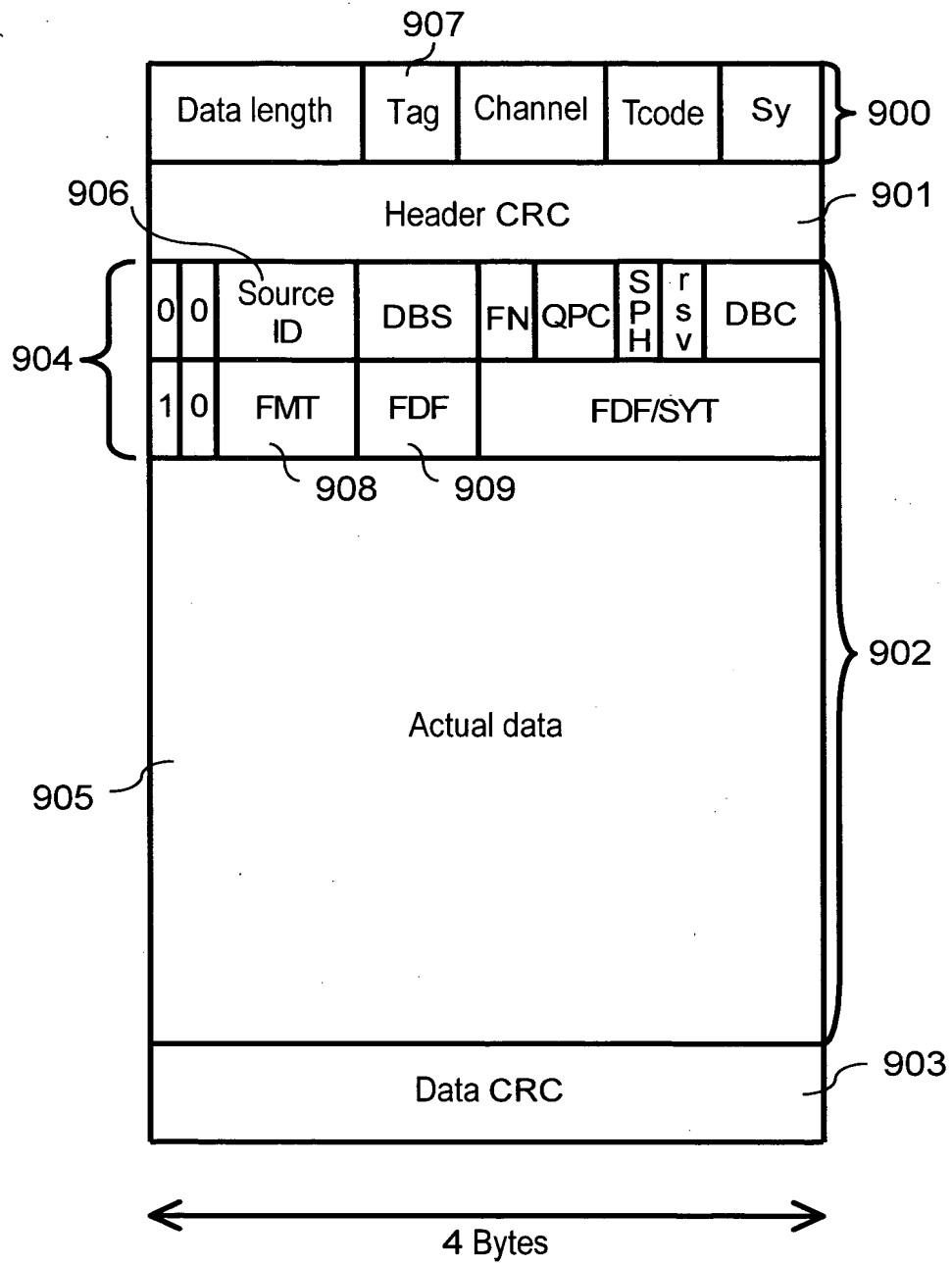


FIG. 5 PRIOR ART

## Reference numerals

|    |          |                              |
|----|----------|------------------------------|
|    | 100      | signal source                |
|    | 101      | encrypter                    |
|    | 102      | source packet generator      |
| 5  | 103      | CIP block generator          |
|    | 107      | isochronous packet generator |
|    | 108, 127 | 1394 packet I/O means        |
|    | 105      | output command               |
|    | 109, 126 | encryption key               |
| 10 | 110      | sending device               |
|    | 128      | receiving device             |
|    | 111      | IEEE 1394 bus                |
|    | 106, 125 | key generator                |
|    | 120      | AV generator                 |
| 15 | 121      | decrypter                    |
|    | 122      | actual data extractor        |
|    | 123      | payload extractor            |
|    | 200      | algorithm ID                 |
|    | 201      | algorithm field              |
| 20 | 202      | label                        |
|    | 203      | step No.                     |
|    | 204      | channel No.                  |
|    | 205      | block No.                    |
|    | 206      | total block No.              |
| 25 | 207      | data                         |
|    | 208      | operation code               |

|    |                              |                                |
|----|------------------------------|--------------------------------|
|    | 209                          | data length                    |
|    | 212                          | maximum data length            |
|    | 299                          | subfunction                    |
|    | 300                          | AKE status command             |
| 5  | 301                          | AKE response                   |
|    | 302, 306                     | make-response command          |
|    | 303, 305, 307, 309, 311, 313 | response                       |
|    | 304, 308                     | verify-me command              |
| 10 | 310                          | create-key-information command |
|    | 312                          | reconstruct-key command        |
|    | 900                          | isochronous packet header      |
|    | 901                          | header CRC                     |
|    | 902, 952                     | isochronous payload            |
| 15 | 903                          | data CRC                       |
|    | 904, 954                     | CIP header                     |
|    | 905                          | actual data                    |
|    | 906                          | source ID                      |
|    | 907                          | tag                            |
| 20 | 908                          | FMT                            |
|    | 909                          | FDF                            |
|    | 910                          | encrypting information (ENC)   |
|    | 952                          | isochronous payload            |